

Marin center aims to incubate virtual reality talent

By [KERI BRENNER](#) | kbrenner@marinij.com | Marin Independent Journal - August 27, 2018 at 7:54 pm

If virtual reality is the new smartphone, notebook or laptop computer, then Marin County has just reached the leading edge of the “next big thing.”

“I believe this technology is going to fundamentally transform the way we communicate,” said Sir Francis Drake High School teacher John MacLeod, founder of the nonprofit New Media Learning that is a key partner in the fledgling virtual reality-focused Marinovation Learning Center.

“It will be the same thing that happened when smartphones, cellphones and computers first came out,” MacLeod said. “At first, nobody knew what to do with it — now, we can’t live without it.”

Marinovation, which just opened its most dramatic component — XR Marin Regional Training Center — over the summer, is in the Hamilton area of Novato next to the South Novato Library and the Makerspace Media Studio. All are key ingredients with XR Marin in what has now become a \$200,000 immersive virtual reality enterprise that could be one of the first of its kind in the nation.

“VR used to be kind of dorky,” said Sara Jones, director of library services for the Marin County Free Library, and an early pioneer of the project. “Now, it’s the next smartphone — and it is happening all across the nation.”

Marinovation is a 12,000-square-foot complex where the entire Marin community — from K-12 students, to seniors, to local industry, to adults — will be able to have a foot in the door of XR.

XR is short for extended reality, the umbrella term encompassing virtual reality, augmented reality and 360 video.

“We want this center to be at the forefront of the technology,” said Jesse Madsen, assistant project manager for the Marin County Office of Education. “This will be the birthplace of talent, support and inspiration.”

High school students are already using XR Marin to learn to create content for virtual reality experiences and training, Madsen said. He and colleague Dane Lancaster are working with College of Marin and other schools to develop a pathway of VR software certification classes so that, by the time the students enter a two-year or a four-year college, they will be able to enroll in degree programs in virtual reality, he said.

The ultimate goal of the educational programs at XR Marin, however, is workforce training. The project has received a \$50,000 state Workforce Alliance seed grant for that purpose.

“VR used to be seen as just for video games,” Madsen said. “Now, it’s seen as both for education and for industries to gain a competitive edge.”

‘Clear mandate’

Other financing for the complex includes more than \$150,000 in in-kind donations of space, labor, equipment and materials from the growing number of enthusiastic local partners: Marin County Office of Education, Marin County Free Library, Novato Unified School District and New Media Learning, among others.

“There are a lot of jurisdictions that have come together, all with a really clear mandate (for workforce training),” Jones said. “People all want to provide students with opportunities to achieve in this technology and are doing whatever it takes.”

The center has also scheduled a group of real estate agents in October — and plans later to have construction companies and tourism officials — to visit and see how the technology can be used to enhance their businesses. Theoretically, the businesses could then hire an 18-year-old, newly trained Marin student to create their VR content — instead of having to go to Silicon Valley to hire a tech firm.

“To our knowledge, this is the first class in the nation that combines total immersion with workforce development,” Jones said. “The total immersion is because it combines high-end computing and high-end broadband.”

Lancaster, senior director of information technology for the Marin County Office of Education, said the 2,000-square-foot XR Marin space — a former early intervention school classroom in a building owned by the Novato Unified School District — has already hosted three, [five-day VR bootcamps for high school students](#) over the summer. This fall, it will offer 10-week after-school sessions for up to 20 students at a time.

“Most businesses, if not looking to hire (VR workers) now, will be looking to do so soon,” Lancaster said. “Our goal is to train people to fill those roles.”

Solomon Smith, one of six instructors at XR Marin, said he started in the field by taking video game design classes at College of Marin’s Indian Valley campus in Novato. Video games often use [Unity software](#), which is the same system being employed at XR Marin.

“I live in Hamilton, so I just walked over one day to see the Makerspace,” said Smith, 32. “I said to them, ‘Do you need someone who knows Unity?’ and they hired me.” Smith said the possibilities are unlimited.

“My goal for this space is to turn it into a bustling spot where people can come in and try it out,” he said. “It can be used by anyone — even senior citizens who have never used a computer.”

Lancaster said one of the students in the five-day bootcamp over the summer was able to create a virtual tour of her grandparents’ ranch in Nicasio. At the end of the five days, her grandparents’ came for the graduation and were able to experience their own ranch via virtual reality.

“They were so amazed,” Lancaster said. For her project, the student used 360 video, the same technology employed by real estate agents to allow potential buyers to tour a home for sale.

Broad applications

In addition to virtual tours to “anywhere in the world,” the technology can be used educationally and therapeutically. For example, jail inmates in Colorado and Pennsylvania who are scheduled for release after decades behind bars are using VR experiences as an advance re-entry program to get ready for such routine tasks doing laundry at a laundromat, using an ATM machine or shopping.

Stanford University Medical Center is also using VR to train surgeons by having them experience virtual operations before working on live human beings, Lancaster said.

Closer to home, Marin County administrators, who are required to take sexual harassment training every two years, may soon be doing their training in virtual reality — instead of in a standard classroom or by watching a video. Lancaster said he is working with a company that is developing a VR program that fulfills sexual harassment training certification requirements.

Elsewhere, companies such as Walmart are already jumping into VR for new employee training. According to Lancaster, Walmart ordered 100,000 VR headset kits for all its stores across the nation. Since employing the technology, the company has reduced the time to train new workers by up to 40 percent.

“We’re also working with a company that has a grant from the National Science Foundation to develop curriculum to introduce students to food and nutrition,” he said. “They will be able to see what happens when they eat a Snickers bar — how it gets into the cells and reacts with blood — to help students understand chemistry and digestion.”

People “need to experience VR to see how they can use it,” MacLeod said. He has seen applications that encourage meditative states by taking people to Muir Woods, and also experiences that invoke compassion by letting people feel what it means to be homeless. Others can get the excitement of traveling under water or to outer space. “We had a girl (in one of the classes) take off the VR glasses and say, ‘I finally understand the cycles of the moon,’” MacLeod said. “We had another girl take off the glasses and say, ‘I want to be an astronaut.’”

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